Abstract 99

ATN GRADING SYSTEM IN A DOME-SHAPED MACULA AND RIDGE-SHAPED MACULA HIGHLY MYOPIC COHORT.

Poster

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Purpose:

To analyze the ATN grading in highly myopic patients with dome-shaped macula (DSM) and ridge-shaped macula (RSM).

Methods:

This was a cross-sectional, noninterventional study. 57 eyes of 38 different patients were included. They were classified as DSM or RSM based on the number of radial scans affected on the swept-source optical coherence tomography (SS-OCT) (12=DSM; <12=RSM). They were graded using the ATN system for myopic maculopathy by 2 masked retina specialists that assessed the atrophic (A), tractional (T), and neovascular (N) components. As complementary measurements, age, axial length (AL) and best corrected visual acuity (BCVA) were collected. Height and orientation of the macular bulge and the presence of Bruch´s membrane defects, scleral perforating vessels and staphyloma were recorded.

Results:

Out of total 57 eyes, 13 eyes (22.8%) were classified as DSM. Regarding the atrophic component (A), there were statistically significant differences between groups, with DSM group showing a greater stage of atrophy (predominantly stage A3 in 69.2% of the sample) compared to the RSM group (predominantly stage A2 in 61.3% of the sample) ($p<0.05$). For the tractional (T) and neovascular (N) components, there were no significant differences between groups. The presence of Bruch´s membrane defects was more frequently seen in DSM ($p<0.05$).

Conclusions:

DSM showed more Bruch´s membrane defects and a greater grade of the atrophic component. As Bruch´s membrane may have biomechanical properties, the defects found around the macula, added to the major atrophic component, may be a cause of a local relaxation that induce a central bulge forming the dome.